

2017 Sacramento Valley GPS Survey Project Fact Sheet

Background

- In 2008, DWR contracted a private consultant to establish a network of over 300 survey monuments, spaced about four miles apart, in the Sacramento Valley and partnered with 25 local, state, and federal agencies to take initial baseline GPS survey measurements at each location.
- The monument network spans 11 counties from Shasta County in the north, to Solano and Sacramento counties in the south.

Reasons for DWR Participation

- The understanding and monitoring of subsidence is an important part of sustainable groundwater management which is why the SGMP supported this survey effort as part of its technical assistance role.
- GSAs can utilize the survey results to support their GSP development.

What's New: The 2017 Resurvey

- In 2017, DWR resurveyed over 300 of the same monuments that were surveyed in 2008 to determine the change in land surface elevation over the nine-year period.
- The 2017 resurvey was led and funded by DWR in coordination with 18 local, state, and federal agencies and a private company.
- For the purposes of the 2017 resurvey, land surface elevation decreases greater than, or equal to, 0.17 feet (about 2 inches) are considered statistically significant.

Key Findings of the 2017 Resurvey

- Colusa County: The Arbuckle area experienced the most subsidence with a maximum change of -2.14 ft.
- Yolo County: The largest spatial extent of subsidence ranged from -0.3 to -1.1 feet at 31 monuments.
- Glenn County: Three monuments showed subsidence ranging from -0.44 to -0.59 feet.
- Sutter County: Five monuments displayed -0.20 to -0.36 feet of subsidence.
- The remainder of the Sacramento Valley showed little to no statistically significant land subsidence.

Groundwater Conditions Related to Subsidence

- During the 2017 resurvey, groundwater levels had recovered an average of seven feet from the severe drought of 2012-2016.
- During the drought, groundwater levels reached historic lows in many wells in the Sacramento Valley. Compared with 2011 pre-drought groundwater levels, maximum decreases were observed in Glenn and Colusa counties at 58 to 43 feet, respectively.

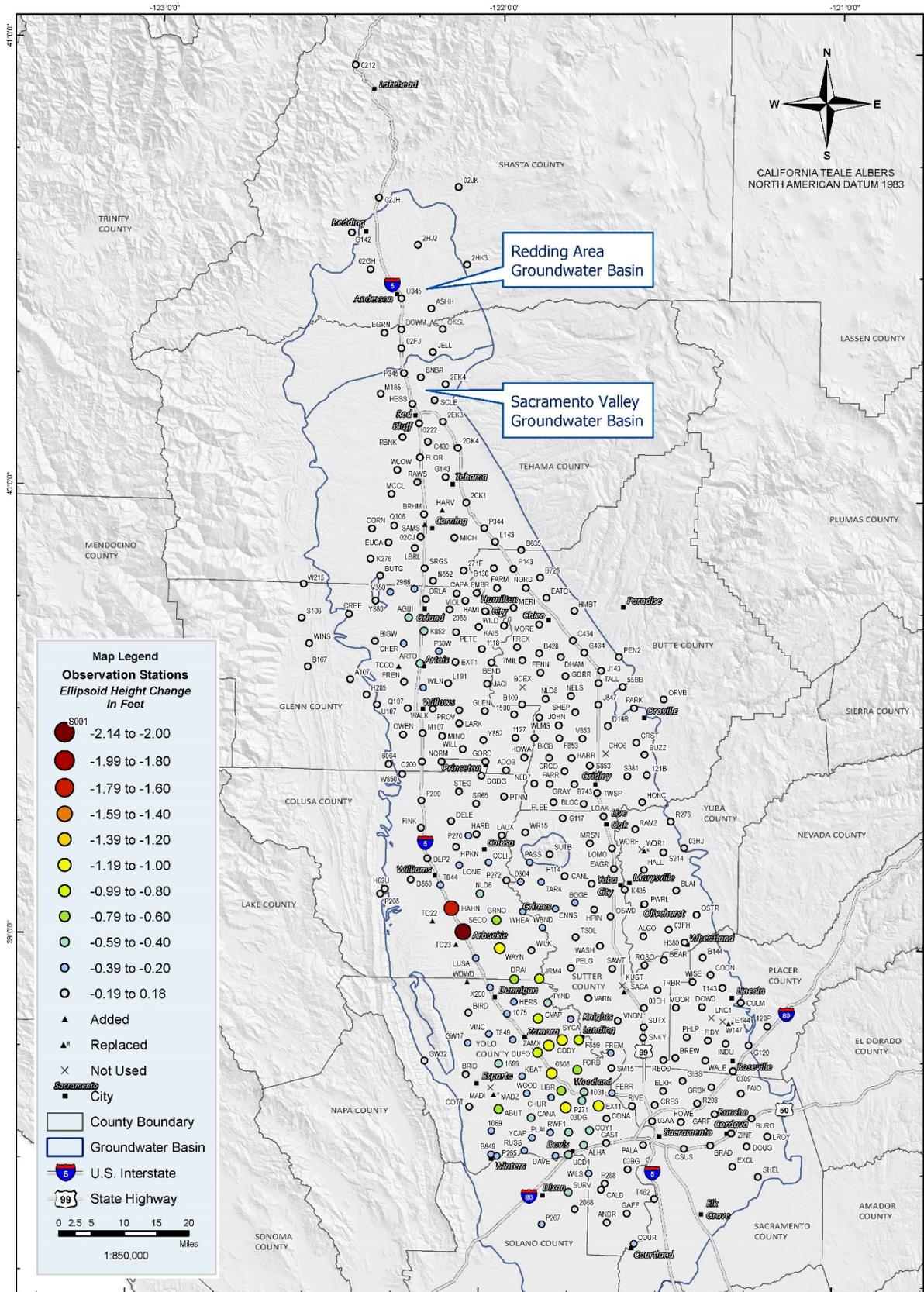
Recommendations for Continued Subsidence Monitoring

- DWR and Partners: Conduct GPS network resurveys at a more frequent interval such as every three to five years to better capture when changes occur.
- DWR: Integrate continuous GPS sites, groundwater levels, and InSAR data into the subsidence monitoring program.

DWR SGMP Assistance to Address Subsidence

The SGMP is providing technical, planning, and financial assistance that will help local agencies further investigate and address subsidence in the Sacramento Valley.

- [Technical Support Services](#), which provide GSA's an opportunity to request DWR install monitoring sites.
- [Facilitation Support Services](#), which help local agencies work through challenging water management situations.
- [Proposition 1 – Sustainable Groundwater Planning Grants](#), which provides funding for developing Groundwater Sustainability Plans.



State of California
 California Natural Resources Agency
 DEPARTMENT OF WATER RESOURCES
 Division of
 Integrated Regional Water Management
 Northern Region Office

**SACRAMENTO VALLEY
 SUBSIDENCE NETWORK**
 Ellipsoid Height Change In Feet
 2008-2017



Program Manager Report

February 11, 2019

Administrative Updates:

- Continued coordination with Mary Fahey, Colusa Groundwater Authority (CGA), and others as needed to organize and direct joint tasks and upcoming activities.
- **California Fair Political Practices Commission (FPPC) Statement of Economic Interests (Form 700s)- 2018/2019 Forms are due April 2, 2019.** Please complete the Form 700 and send the signed original to Lisa Hunter. Forms can be found at the FPPC website at: <http://www.fppc.ca.gov/Form700.html>
or contact Lisa Hunter to request a paper copy.
- Continuing to distribute SGMA Fact Sheet, Subbasin Fact Sheet, and email distribution list sign-up sheet during grower permit renewals.
- Attended CGA Public Workshop on SGMA Implementation & Funding on January 31, 2019.
- Upcoming: Update to Budget to include a revenue line for reimbursement from CGA on GSP projects reimburse by the DWR grant.
- Upcoming: Bylaws- Working with Executive Committee/Legal Counsel to update Article 7.1 concerning signatures on checks to agree with the County's protocol.
- Upcoming: SGMA Program at Rolling Hills Casino, Corning with a local agencies panel

Project Updates:

- Colusa Subbasin GSP Development Proposition 1 Grant (CGA contracting agency)
 - The first invoice and progress report are being prepared for submittal at the end of January.
 - GGA invoiced CGA for project costs associated with the HCM/Water Budget Project for reimbursement (\$13,058.50).
- HCM/Water Budget Project Update
 - Continuing bi-weekly meetings with M. Fahey, B. Clark, L. Hunter on project updates. Team still waiting for release of C2VSim from DWR. Discussion will take place on schedule and feasibility of waiting for the release.
- Technical Support Services (TSS) Project (Monitoring well installation in Arbuckle) (CGA is DWR's point of contact)
 - DWR has conducted a site visit to the proposed well site. CGA will continue coordinating with DWR and update GGA staff on progress.
 - This does not preclude the Colusa Subbasin from requesting additional technical support, which could include additional monitoring sites in the GGA portion of the subbasin.
- Facilitation Support Services (CGA lead)
 - Continuing coordination with CCP and CGA on the draft Stakeholder Communication Engagement Plan.
 - Meeting is scheduled with CGA/GGA/CCP staff for February 15.
- 2017/2018 Audit

- Complete
- CGA/GGA MOU
 - V. Kincaid has been instrumental in developing the draft MOU.
 - Following GGA Executive Committee comments, the draft MOU was forwarded to M. Fahey requesting the CGA Executive Committee review and provide comments. The CGA Executive Committee scheduled for January 18, 2019 was cancelled and expected to be rescheduled soon. It is likely that a Joint Executive Committee meeting will take place to discuss the MOU in late February/March.
 - Following CGA and GGA Executive Committee reviews, the draft will be brought to both Boards for review, comment, and consideration of approval.
- Long-Term Funding
 - Contracting is complete.
 - Kickoff meeting held January 30, 2019.
 - A report on progress will be given under a separate agenda item.